CLAIMS

1. A balanced-type surface acoustic wave filter with a balanced-to-unbalanced conversion function having an unbalanced signal terminal and first and second balanced signal terminals comprising:

a piezoelectric substrate;

a first longitudinal coupling resonator-type surface acoustic wave filter portion having first to third IDTs disposed along the propagation direction of a surface wave on the piezoelectric substrate, the middle second IDT connected to the unbalanced signal terminal; and

a second longitudinal coupling resonator-type surface acoustic wave filter portion having fourth to sixth IDTs disposed along the propagation direction of a surface wave on the piezoelectric substrate, the fourth IDT connected to the first IDT, and the fifth IDT connected to the first and second balanced signal terminals,

wherein an electric signal passing through a signal line connecting the first IDT and the fourth IDT is about 180 degrees in phase different from an electric signal passing through a signal line connecting the third IDT and the sixth IDT, and

wherein, in the first longitudinal coupling resonator-type surface acoustic wave filter portion, in the portion where the first and second IDTs neighbor each other and/or the portion where the second and third IDTs neighbor each other, in one of the neighboring IDTs and/or the other of the neighboring IDTs, weighting is performed on a plurality of electrode fingers including the outermost electrode finger which is the closest to the opposite IDT.

2. A balanced-type surface acoustic wave filter as claimed in claim 1, wherein, out of he portion where the first and second IDTs neighbor each other and/or the portion where the second and third IDTs neighbor each other, in the portion where the neighboring outermost electrode fingers are of the same polarity, the weighting is performed.

3. A balanced-type surface acoustic wave filter as claimed in claim

1 or 2, wherein the weighting is performed in such a way that the length of a plurality of electrode fingers including the outermost electrode finger is made different from the other electrode fingers.

4. A balanced-type surface acoustic wave filter as claimed in claim 3, wherein the weighting is a cross-width weighting or a series weighting.

5. A balanced-type surface acoustic wave filter as claimed in any one of claims 1 to 4, wherein the electrode fingers in which the weighting is performed are disposed in a narrow-pitched electrode-finger portion.

6. A balanced-type surface acoustic wave filter as claimed in any one of claims 1 to 5, wherein, in the second longitudinal coupling resonator-type surface acoustic wave filter portion, the number of electrode fingers of the fifth IDT positioned in the middle in the propagation direction of a surface wave is an even number.

7. A balanced-type surface acoustic wave filter as claimed in any one of claims 1 to 6, wherein one terminal of the fifth IDT in the middle of the second longitudinal resonator-type surface acoustic wave filter portion is connected to a first balanced terminal, and the other terminal is connected to a second balanced signal terminal.